



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



92 d. 3

- (1) Removed 19: x: 39.
- (2) Crozier (J.B.) God or force? 1877
- (3) Caird (J.) Mind & matter. 1888
- (4) K. (J.) True science. 1888





6000437040

GOD OR FORCE?

BEING

AN ATTEMPT TO GIVE AN HARMONIOUS VIEW
OF THE WORLD, AFTER SHEWING THE
LIMITATIONS OF SCIENTIFIC
THOUGHT.

BY

JOHN BEATTIE CROZIER, M.B., L.R.C.P., &c.

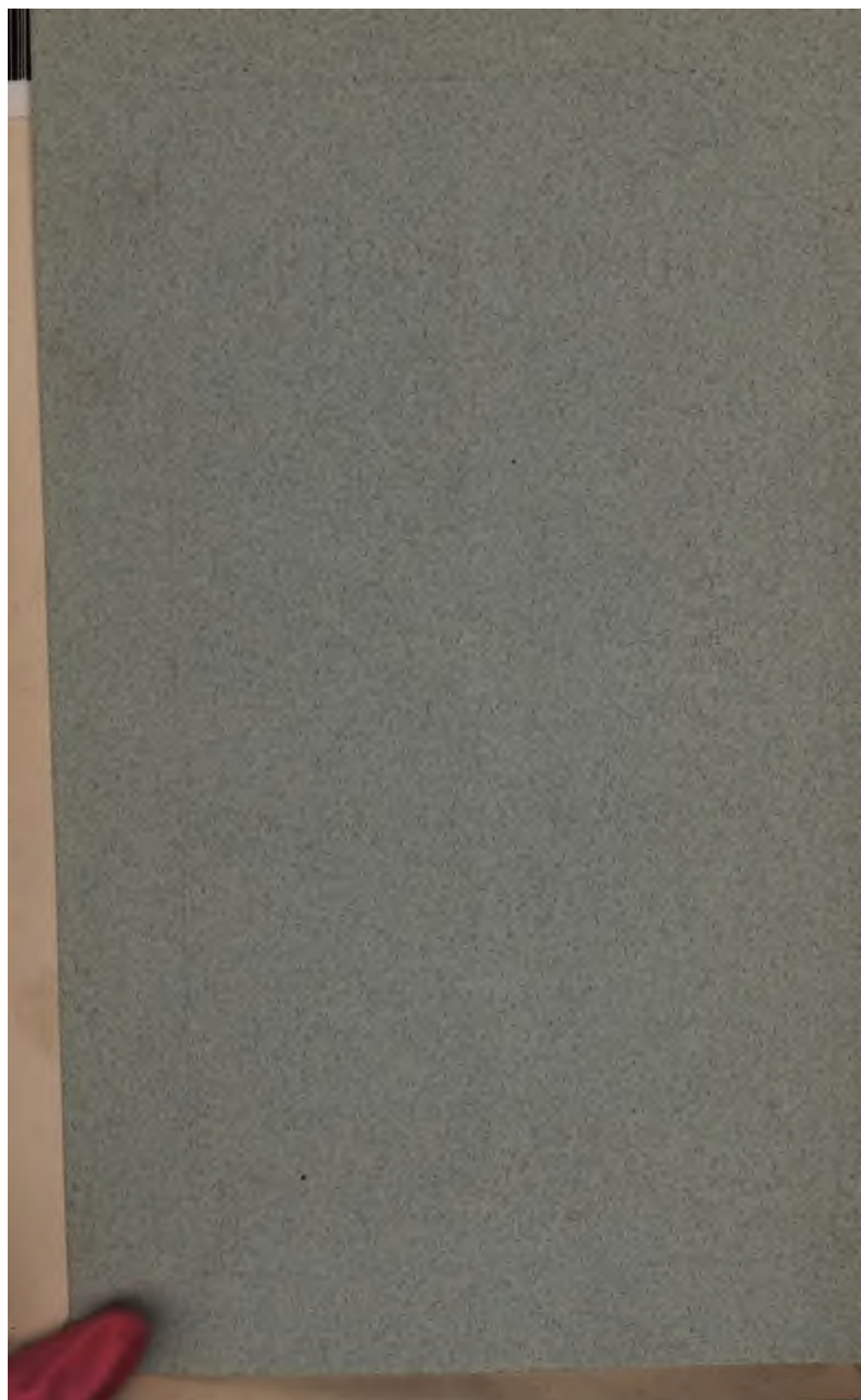
LONDON:

H. HOULSTON AND SONS
PATERNOSTER SQUARE

1877.

PRICE SIXPENCE.

92. d





IN the minds of many cultivated persons at the present time there is a growing belief in the efficacy of science to solve the problem of life. There is an increasing tendency towards scientific teaching in our schools and colleges, and books have been written to show that of all kinds of education it is of the most value, morally and intellectually. Students leave the lecture-room imbued with its principles, and it is believed that its methods are of universal application to the affairs of life. Ever and anon the world is apprised of some new discovery which threatens the existence of consecrated dogmas or traditional beliefs. One by one, old cosmogonies and theologies have fallen before it, and it now announces itself triumphantly to be our only legitimate guide. Its facts have accumulated year after year, and the present large body of systematized knowledge in all its departments has seemed to its leaders sufficient to justify some attempt at a theory of the universe. Mr. Herbert Spencer has undertaken the task, and worked it out elaborately in his "Philosophy of Evolution." This philosophy rests entirely on scientific inductions, and by proceeding from generalization to generalization, ever widening and deepening, we are at last brought down to an Unknown Force as the Cause of all things.

An Unknown Force our God, then, and that too in an age when all our old beliefs have fallen into decrepitude. The effect of this last result of scientific analysis on the present age it will not be difficult to foresee. Not a few will have already felt its blighting influence on their lives and character. Many who have had the heart and capacity to worship will have attempted in vain to kneel before this cold abstraction, and in despair fly back to their early creed. The more narrow, intense, and egotistic minds will be its undisguised propagandists, and boldly avow their atheism. Some will plod on in sluggish discontent, or plunge into excesses of Epicureanism, while the excitement of wealth and ambition will afford to others a passing solacement. But to a few, life would be unendurable

without Belief in a God. These will press on through thickening doubts to the very midnight of unbelief, lonely and hopeless, surely, but still onward, till they either fall weary by the way, or, cheered by glimpses of the approaching dawn, gather new courage, and come out into the freshness of morning and the glorious sun once more.

The present writer has had his own difficulty in endeavouring to lift himself out of this fog of unbelief (which had almost choked him) into a clearer atmosphere. He remembers well the long months of misery he endured after his study of Mr. Spencer's writings. Here was a theory of the universe founded on an enormous mass of scientific facts, of all degrees of certainty, clearly wrought out, logically consistent, and cohering well in all its parts, with evidences of candour, patient investigation, and great range and subtilty of thought visible on every page. No desire to blink difficulties or suppress obnoxious facts anywhere appeared, and over the whole rested a certain philosophical calmness, which, by inspiring confidence, tended to conviction; certainly the deepest and most consistent system of materialism that has appeared since the days of Lucretius. The study of these writings produced a belief in the general conclusions there wrought out—an Unknown Force at the bottom of all things, which you clearly perceived was no God, although you were invited to satisfy your religious feelings at that altar. With nothing to fill up the heart, the result naturally was a weariness of life, which (in the absence of the usual objects of ambition, which were seen to be illusions that could not satisfy any high spiritual longing) was now without an aim. The routine actions of every day, not being quickened by life from above or irradiated by Duty, which now had become an empty name, oppressed the spirit still more, and the sickened heart turned from them with loathing. It seemed as if there was to be no end to this state of mind. I applied for assistance to one of our greatest living Thinkers, from whose writings I was led to believe that he had undergone a similar experience. He gave me generous assurances of his sympathy, told me not to despair, and that time would do everything for me. With lightened heart I struggled on, and the many inconsistencies which, superficially seen, life presents, and which lend ready support to atheism, were gradually lessened by more patient study. This encouraged me to persevere until I could arrive at such an harmonious view of the world as would satisfy my deepest feelings. The remaining

difficulties finally disappeared, and I now feel that no materialism can again shake the firm belief I have in a God who made and still directs the universe. This essay has been written from a desire to separate, as far as possible, the leading threads from the web of thoughts and feelings that have influenced me in this belief, for the consideration of those who can find no rest for their souls in materialism, but as yet have found no escape from its arguments and conclusions. I shall only pick out the leading threads, for all deep heart-beliefs contain elements so fine and evanescent, though none the less influential, that it is impossible to reproduce them. Perhaps the attempt would be facilitated by a brief consideration of some of the leading causes in philosophy and life that have interfered with an harmonious view of the world and our relation to it. They may be arranged under four heads :—first, the neglect of the Scale in the mind ; secondly, the looking at the world from *without* instead of from *within* ; thirdly, the confusion in the choice of the instruments by which Truth is apprehended ; fourthly, the looking at the world with too microscopic an eye.

The Scale in the mind. This is the deepest fact in the human consciousness, standing at the back of all our thoughts and feelings, and giving them their relative dignities. It will be best described by indicating the part it plays in our intelligence, which is built up and organized around it like crystals. It is not a faculty, but the measure of the faculties, giving them their relative subordinations. By it, intellect, justice, virtue, veneration, are marked high, while the physical sensations and appetites are marked low. All our ideas, actions, persons, and institutions take their ranking from it, and the hierarchy of things in the world is only the reflection of this hierarchy in the mind, and without it would fall into chaos. It has preserved its immutability throughout all ages, nations, and individuals. The Fejeean considers murder an act of heroism. This is only the result of custom and traditional education. The fact of the *ranking* is alone of importance, for the game of progress is the throwing the appropriate facts into the old immutable moulds. By it, we get the idea of quality as distinct from quantity, and a spark of high virtue outweighs mountains of utility. Scientific Thinkers will show you that unselfishness springs from selfishness ; but, by the scale, they are as different in their essential natures as the beautiful flower is from the unsightly root out of which it grows.

It asks *what* a thing is, not *how* it is produced, and looks at the function, not the structure or organization. It alone puts the immense interval between force of mind and force of gravitation, and without it God and Force were one. It is present in all intuition, but not in logic or the Understanding. It for ever repudiates the boasted victory of Science over Religion by showing that their essential truths lie on different planes. By it, we are forced to believe that the First Cause of things is not only more powerful, but also *higher* than ourselves. This ranking of all things is a chief delight of conversation, and language reflects it in its choice of adjectives. By it, we are made to feel that pleasure is only the means, but that elevation in the scale of being is the end of existence.

Having noticed the part this scale in the mind plays in our organized intelligence, I now wish to observe that its neglect has been the source of much error and confusion in philosophy and life. It was the root-error in many of the ancient philosophies. The Epicureans made pleasure the end of life. They confounded the distinct natures of the higher and lower pleasures, and thus ignored the scale altogether. The Stoics, in their reaction against the Epicureans, fell into the opposite error, and lost sight of the gradation by making virtue the only good, and all other things, things indifferent, neither good nor evil. Idealism feels it to be its principal bulwark against materialism, but unconsciously and without distinct recognition. It has nowhere, that I am aware of, been brought into the foreground of that system. Materialism by its nature cannot assume it, for that is the attempt to account for the phenomena of the world, both mental and physical, by the Understanding alone. But to the Understanding there is no scale. And yet, without assuming it the materialist would fail in showing the superiority of man to the vegetable, or the vegetable to the mineral. For to the senses and Understanding all things are reducible to atoms, and between a molecule of dust and a molecule of brain matter there can be no difference in dignity. Mr. Spencer, in his System of Philosophy, has kept himself freer from this assumption than most materialists, and yet he sometimes forgets that the scale is in the mind, and not in the world outside of us, and imports it without warrant into the objects he seeks to classify. Hence we find him writing, "Life is *high* in proportion to the number of successive changes occurring in an organization between birth and death," &c. When, consistently with his own philosophy, he ignores the

scale, he writes, "Though mind brings into adjustment the apparatus by which certain ethereal undulations emanating from the sun are brought into a focus, yet mind cannot, like these concentrated undulations, dissipate the diamond placed in that focus." I do not intend here to point out in detail where this assumption has been made by materialists in their philosophies, but would only ask the reader to look out for it himself, and if he finds it, to know that it is unwarrantable.

Again, as materialism cannot assume the scale, neither can it explain it. It cannot be accounted for on any experience or evolution hypothesis. You may show how the nervous structure of the brain, with its centres of co-ordination; may be produced by physical forces, but no "redistribution of matter and motion," "force following lines of least resistance," laws of gravitation, &c., can sweep me together this immutable scale in the mind. You may account for the *difference* in our feelings, but not for the fixed *ranking* of them. It cannot be accounted for by scientific or materialistic thinkers on any hypothesis.

The neglect of the scale has given rise to fanciful theories of society, doctrines of rights of man, equality, fraternity, &c., and to all paper systems.

I now proceed to the second great cause that has prevented an harmonious view of life, viz., the looking at the world from *without* instead of from *within*.

Science, materialism, logic, are all attempts to interpret the phenomena of the world from *without*. They proceed by tearing the Understanding from its roots in the organized human consciousness, and carrying it into the world to give *order* to its phenomena. The Understanding is only the arranging faculty. It stands between the outer and inner world, marshalling the facts on either side that crowd about it, and giving them order. When it deals with the phenomena outside of us it is science—metaphysics, when with those within us. But it gives no insight into things themselves. Science formulates physical laws, but what are these laws of gravitation, chemistry, heat, electricity, but simply the order in which unknown forces are manifested to us? I cannot know these forces in themselves, because I cannot realize them in myself. All insight is this power of realization, or the extent to which I can project my own consciousness into the object, and think out from thence, as it were, and so anticipate or interpret its action or manifestation. The little bird that sings so sweetly to me, science gives a name to,

marks it as of a certain species, of a certain class, and calls the result knowledge; but at bottom what can I know of the bird in itself, but as much only of its little joy or grief as I can interpret from within myself? Into the private nature of most things I can have no insight. Do I not walk through a world in which few objects are known to me? I pass by this immense diversity of objects, which stand like apparitions, tenacious of their private secrets, and mock my interrogatories by silence. But nature does not leave me unprovided for. By the reaction of things on the scale of feelings within me (around which all our intelligence is organized) I am apprised of their relationship to me, and my proper attitude to them. All our knowledge of the physical forces of nature is got by their effect on the special senses or muscular sensation. But there they stop, having nothing of their essence to reveal to us, and have a low reaction on the scale. They never reach my inner sense. The Understanding may take up these sensations, throw them into order, label them, and the results of these operations are announced as physical laws, which applied to the arts serve us for Use, and there their relation to us ends. They play no part in world-insight. That comes from the essence of things. The flower, for example, strikes the outer senses too, and if it escapes scientific mutilation, it passes on to the inner spiritual sense, and there reveals its essence, which has a high reaction on the scale, and refers us back to its cause.

Again, as scientific knowledge is not insight, neither is scientific causation real causation. All scientific causes are only orderly effects, and cannot be conceived as real causes. A stone thrown into the air falls to the ground. Why? Because the attraction of gravitation brings it down, *i. e.*, only because all other things fall under the like circumstances. But to the question why all things fall, no answer can be given but that so it stands in the will of God. We are so accustomed to attribute cause to relations between proximate effects, that we forget that the word is used for convenience only. If I say that fire is the cause of the burn on my hand, the expression is convenient, but unphilosophical, for at bottom it is nothing but the relation between two effects, which spring from a cause to which, by my very nature, I must attribute Will. This I would expect *a priori*, for if I can only know what I can realize, being myself an embodied will, I can know nothing but as the result of will.

And here again we see the unwarranted assumptions of scientific, and materialistic Thinkers. Is it not the very distinction of their method to introduce no mental fact into the objects they are classifying? Causation is a mental fact, and cannot be conceived apart from will. If imported into reasoning at all, it must always carry with it the idea of will.

Turning now from this analysis to life, we shall see that there too, all insight into things comes from interpretation from *within*. Is not all knowledge of man from *within*? Is it not the same perceiving the same? I am enabled to construct his character only by self-interpretation of his words and actions. For, to the senses, what could there be in common between a tone, a look, and a gesture? And what ground then for science, which proceeds on the likeness of sensations? It is only by realizing the unity of feeling, which gives rise to these different manifestations, that I can understand the character. His good or evil nature, happiness or misery, love or hate, too, could only be known from within. This interpreting element of feeling which is within us, is precisely what science cannot assume, as it is pledged to interpret from the Understanding alone. The utmost that science could understand of man would be how his structure might result from physical laws. A few cells more in the brain, scientifically speaking, make all the difference between the monkey and the civilized European. And yet what a difference! A few cells more. What a gospel there may be in those few cells! What a dominating thought they may give the world! There is no relation whatever between these cells and the character of the thought they carry.

Then, again, all excellence in the fine arts depends on this inner knowledge. Is not Shakespeare's acknowledged intellectual superiority due to his intense power of realization, or of being the thing he describes? Does not his fine tracing of passion, in all its fluctuations, depend on his realizing the situation from within? In all poetry, music, and art, the high genius gives us inner truth, and science following slowly after can only give order or laws to what he has invented. What can I know of the heroes and heroic deeds of history without this power of entering into the spirit of them? All political insight, too, depends on this power of anticipating the effect of legislation on the complex interests, feelings, and prejudices of the different classes in a nation, and adapting it to them.

All knowledge at bottom must be in terms of the Human consciousness, from physical laws and their uses, given by their impressions on the outer senses and the Understanding, to æsthetic and spiritual laws given by their impressions on the inner spiritual senses. All science proceeds on the likeness of impressions on the outer senses; all insight, on the likeness of impressions on the mind as a whole. Hence analogy, which is the least significant of logical or scientific relations, is the most significant of spiritual ones. There is variety at the circumference of things, unity at the centre. To the outer senses all things are diverse, less so to the understanding, which shows laws running through them, until to the inner spiritual sense there is unity or sameness of impression. To the senses and Understanding nothing can be known but co-existence, sequence, likeness, difference. The idea of causation, the scale, the idea of beauty, &c., have to be imported into things from the mind.

Again, the essential nature of things can only be got by interpretation from *within*, while science can only at the farthest build up Structure. Looked at from within, the world is only a web of Tendencies, and each individual is a group. For example, the tendency that bodies have to fall to the ground is manifested to the outer senses, and is a physical law. So, too, the tendency that all human beings have to increase their influence or power is manifested to the inner senses, and is a spiritual law. We have equal certainty of their existence by their uniform reaction on our consciousness, and exceptions are only results of other tendencies contravening them. Now the physical go to make up the structure of things, while the spiritual make up their essential nature. Science can only discover the physical, not the spiritual; hence the absurdity of all attempts to account for the universe by physical laws, for no scientific legerdemain can so manipulate the Part as to account for the Whole.

Language, too, is from within. It springs from the reaction of the world on the human consciousness. We press the world into the service of thought, for the purpose of expression, by selecting such objects as produce the same feeling in our minds as that we wish to express.

Then, again, the scientific method of investigation is not intellectual. Intellect is the power of realization, and reacts on character. Individual scientific results gratify only curiosity, and react on character only when combined into a philosophy

which denies the existence of God. The method of finding truth, according to Mr. Spencer, is to "compare all opinions of the same genus; set aside, as more or less discrediting each other, those various special and concrete elements in which such opinions disagree; to observe what remains after the discordant constituents have been eliminated; and to find for this remaining constituent that abstract expression which holds true throughout its divergent modifications." Is not this a mere mechanical trick? I had always thought that the highest intellect would reveal the highest truth. This jumbling of all opinions can only give the lowest truth, and there seems to be no reason why the monkey's opinion should not be included also, now that the wall which formerly separated man from the brute has been cunningly removed by scientific Thinkers.

Again, science makes a great point of the *how* of things. Philosophically, the *how* can be asked of effects only, not of causes. The mind thinking is a cause, not an effect. Scientific Thinkers consider man as a creature, but is not the thought, "Man is a creature," a creator's thought? Things become visible only when a certain point of intelligence is reached, and much is seen by the man which is invisible to the monkey. The fact that feelings rise and fall in accord with nervous excitations and depressions gives us no hint as to what they reveal. How I reason has no influence on what I see by reason. Depth of thought, or feeling, depends on the sensitiveness and power of the mind as it is. The structure of the brain may be an effect of physical causes, but the thought itself is a cause. No world-insight, then, can be got by the *How*.

The world may be made to subserve many purposes, according to the idea you import into it. Carry the intuition of causation into it, and you have philosophy. There is no necessary reason why I must think of the phenomena of the world in regard to their causes only. There are other intuitions in the mind as old and as pressing. Carry the desire for unity of impression into it and we have poetry; the desire for beauty, and we have art; the idea of the scale, and we have the hierarchy which we see throughout all life.

Scientific and logical thinkers affect to despise the Feelings of the mind. They think that they disturb the intellectual balance. But, as I have said above, our whole intelligence is built on the scale of feelings, the function of the un-

*

derstanding being only to give them order. Is not our apprehension of character due to the reaction of the man on our feelings? Does not love detect love, anger detect anger, sentiment detect sentiment? All realization is the power of inducing the same feeling in ourselves as is in the object. I cannot perceive the fine poetic thought, unless I have myself the power to realize it. Observe, too, how a strain of music revives a train of long-forgotten circumstances with which it had been associated. By calling up the same feeling it revives the circumstances. Unity of feeling, too, makes the poem. Again, is not the finest ingredient in our special aptitudes due to impressions? The physician's impressions after long practice give him a finer apprehension of disease than the catalogue of symptoms in the books. Experience brings with it vivid and faint impressions of all degrees, and establishes not only sharply-defined truths, but broad planes of unformulated feeling in the background of consciousness, which go to make up our intuitions. Our first impressions of men are often the best. All intuitive sagacity proceeds from this background of indefinite impression.

I must animate the world with a living Reason before anything can be explained. Our feelings are the hints we have of final causes. Otherwise, why have the feelings at all? Why not go through my necessary action unconsciously, like the vital organs of the body, the heart, lungs, &c.? They mark where the emphasis of thought and action is to be laid. The feeling is low, short and intense in the lower appetites, because they are not to be dwelt upon, yet are most indispensable; but high and long-continued in all great action or contemplation; and thus we see that pleasure is only the means, but that elevation is the end of life.

All the foregoing considerations converge to show that no harmonious view of the world is possible from without, but only from within.

I shall now proceed to the third cause of disproportionate thinking, viz., confusion in the choice of the instruments by which truth is apprehended. It is unphilosophical to ask what things are in themselves. We are so constituted that all the knowledge we can have of them is how they are related to us, and our attitude to them. The special senses apprise us of the vicinity of objects that are to be sought or avoided, that are beneficial or injurious to us. The lower appetites prompt to actions that are necessary to our welfare. The Under-

standing shows us the order and connection of these objects, and by separation and combination fits them together for our convenience or use. The spiritual senses within us find their sphere in the world of Beauty, Beneficence, and omnipresent Power around us, and pay homage to these in Worship, Art, and Self-renunciation. But these different reflectors in us are rigidly limited to their own special province, and any mistake in their application is punished by confusion of thought. The special senses cease their function when they have supplied us with the raw material of impressions, the Understanding when it has given order to these impressions; and only to the inner spiritual senses is the essence of things disclosed. We have many hints from nature that these limitations must be strictly guarded. The eyes are adapted only to a certain range of vision, the touch to a certain degree of fineness. The understanding when it passes the finite becomes self-contradictory, and can neither conceive of space without end, nor of an end to space. Beauty vanishes under the microscope, and the landscape pleases only when seen from a distance, where ugly details are lost to view. The application of the Understanding to what comes necessarily within the sphere of Spirituality alone, has been the source of many errors in speculation and life. We allow the artist to give us a representation of some old historical scene, with the tacit understanding between us that it is not to be accepted as literal, else it might be endangered by criticism. We should have done the same with religion, but have really done the opposite. Yielding to the tendency to embodiment, which is so strong in the human mind, and in many ways so necessary, we have forced its high spiritual conceptions into sensuous shapes; and belief has been exacted by the Understanding for the form as well as the essence. Hence we have creeds, churches, confessions of faith, and sensuous representations of the Deity. This fatal error has been compensated, as all error is; science boasts of having hunted the Deity from covert to covert, pulling down His retreats, thinning His adherents, until it is now believed He is a phantasy, and sceptics ask sneeringly, Where is your God? Such has been the consequence of bringing down what to us must ever be only an essence or soul (but real, and ever-living, from the unchanging reaction of the universe on the mind) to the vulgar platform of the Understanding, to be debated there. The essential truths of science and religion lie on different planes, and cannot be compared, much less proved to

be identical. Scientific and materialistic philosophies, in their last analysis, can represent the first cause of things only as an unknown force, an abstraction, while spirituality represents it as the soul of all high attributes. There is no need of the weak fear of anthropomorphism, so prevalent at the present time. As long as human nature is constituted as it is, we must conceive the First Cause of all things as the highest Reason, highest Beauty, highest Love, and being led by imagination can only give expression to our thought by the use of sensuous images. As culture ascends the images refine. But the reaction on the character, the full and harmonious satisfaction of our higher feelings, is alone of importance. Does the god of the savage, that colossal being in human shape, terrible in revenge, but boundless in power and favour, satisfy you? Then that is He. Does the Jupiter of Homer and Phidias? That is He. Does Christ? That is He. Does that subtle, indefinable, unnameable Being, who is ever working, ever present, and ever the same, does He satisfy you and make your life harmonious? Then that is He.

Most of the high doctrines of the Spirituality have been brought for judgment before the Understanding. High truth is always endangered by submitting it before an inferior tribunal, and the experiment has been as ineffectual as hazardous. The subtleties of the schoolmen were barren of results. They discovered nothing new, but ran round in an eternal circle. This endless iteration weakened truth, and wore off its edge. The doctrine of the immortality of the soul is in all high thinkers rather a broad intuition than a catalogue of reasons. But when the theologians got it on their anvil it was wire-drawn into a score of logical threads, which have been snapped by materialists from the age of Lucretius to the present. The doctrine of the Trinity originated in the desire to accommodate truth to the floating ideas of the time, and when it had hardened into an article of faith, was broken by the same hammers that had forged it.

The secret of harmonious insight lies in your choice of instruments. The senses are assisted by the microscope and telescope, blowpipe and retort, which disclose the hidden tendencies of matter, and enable us to appreciate their complexities with more accuracy, and as every individual object is a group of tendencies, that respect they are most valuable. We must drop these however, when we come to the investigation of the relation

between the several parts of the same object, or between one object and another. For instance, the function of the biceps muscle is clearly to flex the forearm. This we perceive by the unaided senses and the Understanding. But were we to decompose it into the innumerable cells which go to form it, and apply the microscope to each of these, it is evident we never could understand the function of the muscle as a whole.

Then again, still higher world-insight can be got only by the reaction of things on the mind as a whole. The Understanding, using science as its instrument, could never see the harmony of the world. For science proceeds solely on the likeness of impressions on the senses, but the world is diverse. A strain of music, a beautiful flower, and a landscape, although unlike to the senses, may all make an identical impression on the mind. Insight into the world is got in the same way as insight into man. For how can I know the man but by the reaction of his words and actions on my own mind? His conscious soul cannot be seen, or in any way made apparent to my senses, and yet it can be so disclosed to me as to compel belief in it. The belief in God comes in the same way, from the reaction of nature on the mind. As the physical man is the mask that hides yet reveals his spirit, so does nature hide yet reveal God. The impression that nature makes on the mind has the highest reaction on the scale within us. What more could a visible, palpable God have? Scepticism commences only when the God is embodied in a sensuous form and degraded. Without this, there could be no room for Atheism. This confusion, then, in the choice of the instruments by which the different orders of truth are apprehended has been the source of much error.

The fourth cause, and last that I shall mention here, of inharmonious views of the world, is the looking at it with too microscopic an eye.

The doctrine of Divine Providence has been denied. Nature is seen to treat her children roughly, paying little regard to individuals. Disease and death are no respecters of persons. The physical tendencies, too, are inexorable, and to these God is supposed to have committed the care of the universe. Providence is the connecting of the individual with the will of God. Some of the links in the chain of tendencies appear to be wanting, and the individual is concluded to be isolated from God. The links are not wanting, but are unseen. They cannot be traced to the individual, but are seen when we look over large

areas. Is not this marvellous adaptation of every organism to its environment, providence? Is not the mechanism by which I swallow my food in safety, providence? The minute arteries which supply each particular cell in any organ of the body cannot be seen, although the larger one of which they are branches can. They are there, though unseen, as is evidenced by the continued existence of the parts they supply. If the oversight of the whole is providential, must it not be so also of the parts? If the world is advancing to any goal, it must be by the co-operation of individuals. The men of this generation must carry on the ark of God to the point where it is taken up by the men of the next. Must not each of us then have his appointed lot?

The parent losing his child by early death asks doubtingly if there can be any providence, else why this early bereavement? He does not perceive that one object of nature's profusion is to provide against the ravages of Necessity. The oak produces thousands of acorns, the tree thousands of blossoms for every one that reaches maturity; animals breed in proportion to the dangers to which they are exposed, but there is always enough for the purposes of continuance and progression. Ought it not to be enough for each of us, if we are certain of a God, and a providence that does all things well?

Again, it is asked, how account for Evil? I see no evil in the ground-plan of nature. As they exist in the Eternal Mind, the threads of this web of tendencies which constitutes the world are all Good, but when Time commences, and the web is being woven, their friction and interaction (which we call Necessity) produces evil, and in moral natures their opposition, unless chastened into harmony, produces sin. But just as cold, which seems to the senses to be a positive quality, is really a negation, being the absence of heat, so sin is positive to our moral nature, but to the intellect has no existence. And yet this Necessity, which is felt by the individual as evil, works out pure good for the world, and is the source of all progress.

From the foregoing considerations we have seen, then, that an harmonious insight into life is to be got only from the reaction of things on the organized Human Consciousness. Taking that attitude, it was seen that the world is a web of Tendencies, each individual object being a group. Trees, crystals, animals, men, have each a distinct existence, but it is only when we decompose these organized facts into the separate tendencies

which constitute them that we can see the deep relations subsisting among them. The scientist does so to discover their physical tendencies; for this purpose the anatomist uses his scalpel, the chemist his retort. But we saw that in all highly organized beings, besides these physical tendencies which constitute their structure, there were the spiritual tendencies which cannot be apprehended by science, but are perceived by the inner spiritual sense. These constitute the essential nature of the object. We saw also that these two classes of tendencies were alike in giving us equal certainty of their existence, the former by their uniform impressions on the outer senses, the latter on the inner senses; but were unlike, inasmuch as the former are not knowable, not being realizable by us, the latter are so; and the former gave a low, the latter a high reaction on the scale in the mind. We saw also that the physical tendencies serve for Use merely, but the spiritual for world-insight. I shall endeavour so to present the latter that they shall be seen all to point to one end.

The end of nature is the formation, in Time, of Character superior to Necessity. As organizations ascend in the scale of being we find a steady degradation of the physical and material, to allow a freer play of the higher powers. In all animals the vital functions are performed unconsciously; and in the lower, self-preservation and reproduction occupy the largest part of conscious existence. In man these occupy but a small portion, and leave room for the intellect and character to expand. These bear the high stamp of the soul, and commend themselves to universal humanity. In highly favoured individuals they overleap the wall of Necessity which imprisons them, and become free. Let us see how the tendencies of the world all co-operate for this end.

The Tendencies to Self-preservation and Reproduction are the most immediate and pressing. They are ministered to, not only by the special senses, physical powers, and lower appetites, but by the minor tendencies to pride, envy, vanity, combativeness, and fear. They furnish the warp into which Time has to weave his most variegated colours. There must be this continuous web of existence for the Eternal to work out His results in Time.

The Tendency to Ascension runs through all highly organized beings. Everything looks upwards. In animals Might is the certificate of right. It is their highest distinction. The strongest have the best chance to survive and propagate, and to

them the females are most strongly attracted. Women love the heroic, strong, and wise ; and beauty in its last analysis is only nature's representative of these high qualities, and always refers itself back to spiritual attributes. This tendency of the race to ascend on the ground of sexual preferences is secured to the individual by his mental constitution. We are all led by Imagination, which, by giving a sort of infinitude to the object, draws us on to emulation. The dullest are led by it. It is not the gold itself, or the satisfaction it will afford to his physical wants merely, that the miser has in his eye, but the undefined and dazzling region of delight it opens up before his imagination. This leading of the imagination appears early in life. The boy sees all the world in his games and youthful contests, and works for the prize at the village school as if it were a kingdom. The enamoured youth sees the best of everything in his maiden. In the man this tendency runs into hero-worship. Our admiration is the thing we ourselves would wish to be, and to which we endeavour to elevate ourselves. What a man in his heart admires most, gives the clue to his character. His talents all minister to it, and around it all his thoughts and feelings are made to revolve.

Another element in this ascending tendency is the existence in the mind of Ideals. Much complex intermingling of experience and imagination goes to the formation of these, which, like fixed stars, are the points by which we guide our course through life. The lower, as well as the higher aspirations may be invested with this ideal character, and to these glittering points that lie in all directions the world of men is seen to radiate.

Then again observe the part played by Individualization. On the circumference of things is this immense variety, where the game seems to be to ring as many changes as possible on a few fixed principles. These separate existences reflect back on each other their excellencies and beauties, and multiply to infinitude our sources of aspiration. The love of personalities plays the principal part in our education ; from it we digest our code of morals, and endeavour to embody in ourselves the virtues we admire in others. History, biography, and novels do the principal teaching to the youth of the present day. Compared with it all mere scientific or scholastic teaching which has no reaction on the character is trivial, superficial, exuvial.

But these ideals when attained do not fill up the heart. The boy outgrows his sports, the youth his maiden, the man his idolatries ;

wealth does not satisfy, and place and position when attained lose the character of vagueness and brilliancy which dazzled and drew us on, and shrink into littleness. The sensualist's path leads to disgust. Special attainments and points of virtue, too, fail to satisfy, and we learn at last that there is no rest but in God.

Thus these illusions instruct while they deceive. But unless the mind is quick and apprehensive we do not run to the end of this chain of deceptions, and so stop short of the goal. So long as our minds rest on any of these proximate objects of pursuit we cannot dedicate ourselves to God, for two opposite infinities cannot possess the mind at once.

The antagonism of the higher and lower Tendencies is another factor in Ascension. The obstinacy of iron, earth, wood, develops mechanical and artistic skill, the complexities of our environment call out all our resources, and our virtue is exercised and strengthened by the control of our passions.

But these upward tendencies are in the mind, and if they rested there, progress would cease. How then is the world benefited? Observe first as a connecting link the Tendency to Unity. Give a man time, and his mind will become a unity, and everything he does will be significant. His actions will become one with his feelings, and his feelings one with his thought. It makes possible the realization of our ideals. Without it life would want definiteness of aim. It concentrates the powers of the mind for united effort, and counteracts that love of variety which, if persistently indulged in, confuses thought, relaxes the character, and dissipates organized effort. To reach it is the unceasing endeavour of the mind. Science cannot rest until it has reduced all the physical forces to one, nor our feelings until they have resolved everything into unity of will. The very essence of cause is unity of will.

Observe, again, the Tendency to Embodiment seen throughout nature. The world itself is the embodiment of spirit; language, facial and bodily expression are the embodiment of thought and feeling, of which literature and art are the more permanent forms. Character is the embodiment within ourselves of thought, slowly built up and consolidated. Our action, too, is the embodiment of our thought. In the pursuit of ideals we pave every step with work, with action, and thus the world is benefited although the individual may be sacrificed. This tendency to embodiment is assisted by the Tendency to Belief. Without this, action would be weak and nerveless, not strong and direct.

The belief we have in the beneficence of nature is very beautiful. We give ourselves calmly up to sleep, and rest without suspicion, expecting to awaken to renewed life. We trust ourselves to the elements, to our food, its safe passage to the stomach, and subsequent changes in the blood, and conversion into strength and beauty. We trust to the continued beatings of our hearts, and the continuance of life from moment to moment ; to our continued sanity, although the chaos of madness lies always near us. We trust to the rotation of seasons, crops, and verdure, although the earth's surface is only a beautiful skin, beneath which boils a caldron of confused elements. We trust that a man's character is truly represented by his sensible motions, although his soul cannot be seen ; and to the immutability of God and His laws, although He himself is hidden from us.

Observe, again, the Tendency to Co-operation. It redoubles the force both of belief and action, and still further assists in keeping the visible world following in the track of the ideal. We all need sympathy. Our high thought would die out of us, did it not meet with the sympathy of kindred minds. Society is the arena where our talents have room to expand. The bond of union is always the Idea. Friendships are founded on identity of feeling. All associations of men have some dominant thought around which they unite. Institutions of all kinds are its visible expressions. Church and government correspond to the two largest divisions of human interests, its spiritual and material welfare. Society provides for the lawful exercise of all our impulses, and leaves no excuse for crime. If the passions are strong, you may marry ; if the desire for property is strong, you may work, not steal. Government takes retaliation out of our hands, and leaves no room for murder or private revenge ; it affords protection to all, and thus allows freedom for the higher nature of the individual to expand.

But how are the accomplished results of human thought and effort secured against time and change ? By the Tendency to the conservation of the Good, Time swallows all things but the good, which steadily works on, and accumulates from age to age. Custom is one element in this tendency. The world is the slave of custom. To the aspiring youth truth itself seems powerless against it. On our entrance into life we are dressed in certain customary modes of thought, feeling, and behaviour, and most of us wear the same suit all our lives. We take our creeds from our fathers, and our morals as well as our fashions from society,

and applaud or condemn as it dictates. These things are in the air which we inhale, and this atmospheric education influences our conduct more than any other. Conformity to custom meets with the world's applause, and in every drawing-room appears in the form of stock-sentiment. But custom subserves a good purpose. It is the break on the wheel of change. It follows thought, though at a great distance; and keeps institutions alive until the good that was once in them has departed and entered into other forms.

Observe, again, how the best modes of alleviating physical labour are transmitted from age to age. Manual labour is superseded by machinery, and inferior machines are laid aside only when better come into use. Observe also the accumulation of scientific facts, the increase both in the number and delicacy of scientific instruments, the enlarged knowledge of physical tendencies which has resulted from them; and this, again, reacting on the arts, has produced still further improvements. All these have been the slow accumulations of the ages which they have survived. Then, again, observe the tendency of all good books to be preserved, and of all good works of art. Homer and Raphael still survive to instruct the youth of the present day. History preserves the memorable experiences of the world, and leaves its daily trivialities to be forgotten. Thus, then, the essence of the past is distilled into the present.

But we saw that the lower as well as the higher tendencies may assume an ideal character. These false ideals get embodied, and produce endless confusion, and the question is, what prevents the world retrograding?

Observe, first, the Tendency to Justice. Intellect is the power of discerning the Tendencies of the world in their natural subordinations; justice is Nature's enforcing the observance of them. All civil, moral, and social codes are but better or worse reflections of this dominating tendency of nature. Nature has at heart the formation of high attributes, and takes a short cut to her end by making might the test of right. This is the tune the nations have marched to, and throughout all its variations (which we call history) the original air is heard. If the individual sinks his high virtues he loses influence, becomes less in the scale of being, and must submit to superior domination.

Observe, again, the Tendency to Adaptation. It puts a cushion between us and the rough corners of things that have been jostled from their places. It enables us to float when otherwise

we should sink. We gradually adapt ourselves to new climates, new countries, new manners, new morals, and new modes of thought, and we die when age makes us too rigid for new and wider conceptions. Then there is the Tendency to Compassion, which breaks the force of fate, to which we are all exposed, and cheers the heart for new endeavours. This sympathy in the breast of man for his brother man is very beautiful. It redoubles all our active powers, invigorates the will, and gives fresh impetus to Despair.

The foregoing tendencies all unite harmoniously in gradually leading the world into accord with themselves, and the individual to the end of his existence—Freedom of Character.

This is the reliance on high attributes, or the God within ourselves, against all the powers of Necessity. The self in us is annihilated, and we breathe in freedom. It is the consummation of manhood. When attained, it expresses itself in Heroism, Worship, and Art, which are also ends, and which correspond to the different sides of our nature, its tendency to Action, Contemplation, and Beauty.

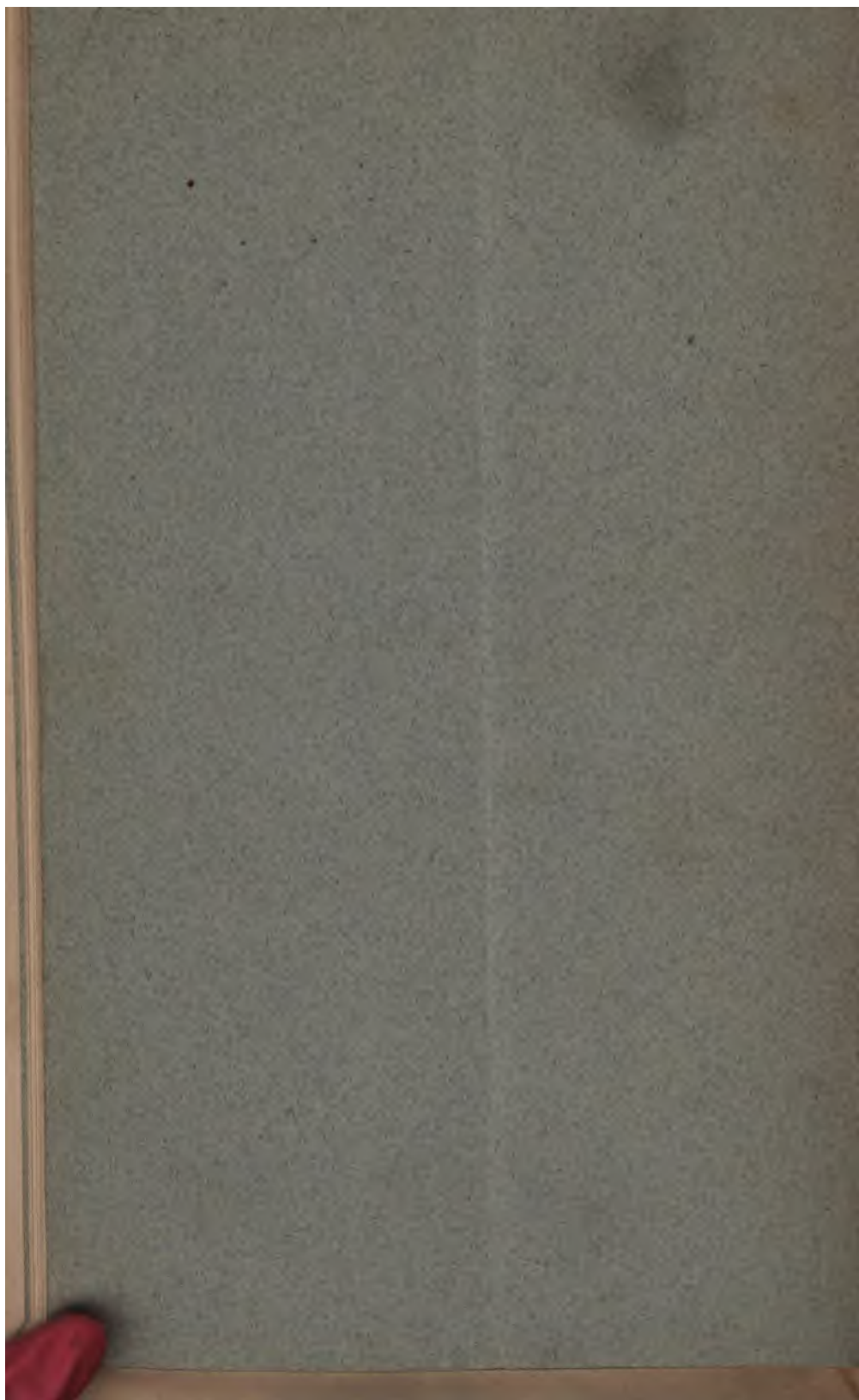
All things in nature struggle towards beauty; and deformity, like evil, is only the result of necessity, and does not lie in the essence of things. The artist strives to restore this ideal beauty on canvas or stone, and its pursuit is a source of pure enjoyment when cultivated with a religious spirit.

Worship should be the flower of culture, the harmonious outcome of all our feelings, chastened and refined, and not a daub. It should be in the grain, not a mere veneering, and is the expression of inward peace.

The history of the world abounds in instances of heroism. These great souls, scattered through distant ages and nations, and quickened before their time, are the high-water marks of humanity, and announce what one day will be universal.

They reached the point where the human melts into the divine.





MIND AND MATTER.

A SERMON

PREACHED BEFORE THE
BRITISH MEDICAL ASSOCIATION,

ON TUESDAY, AUGUST 7, 1888.

BY JOHN CAIRD, D.D., LL.D.,
PRINCIPAL OF THE UNIVERSITY OF GLASGOW.



Published by request of the Association.

GLASGOW:
JAMES MACLEHOSE & SONS,
Publishers to the University.
1888.

92

MIND AND MATTER.

A SERMON

PREACHED BEFORE THE
BRITISH MEDICAL ASSOCIATION,

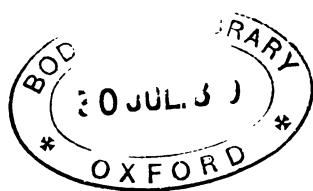
ON TUESDAY, AUGUST 7, 1888.

By JOHN CAIRD, D.D., LL.D.,
PRINCIPAL OF THE UNIVERSITY OF GLASGOW.



Published by request of the Association.

GLASGOW:
JAMES MACLEHOSE & SONS,
Publishers to the University.
1888.



MIND AND MATTER.

ROM. xi. 36. "OF HIM, AND THROUGH HIM, AND TO HIM, ARE ALL THINGS; TO WHOM BE GLORY FOR EVER."

ST. PAUL, as his manner often is, passes here, by an abrupt transition, from elaborate argument to an expression of ardent and almost passionate religious emotion. He had been discussing at great length the moral problems involved in the history of his race—in the seemingly arbitrary election of the Jew to special religious privileges and his equally arbitrary rejection. But from all these and similar questions he rises as if by a leap to that loftier attitude of thought and feeling in which the apparent contradictions and anomalies of the finite world, the enigmas which human life and history present, vanish away in the light of the idea of God. And the idea of God in which he finds consolation is obviously that not of a mere Omnipotent Personality, an external Creator and Ruler, seated in some distant celestial sphere, calling the world into existence by an arbitrary fiat, controlling its affairs after the manner of a human potentate by a series of equally arbitrary interferences. It is rather that of a Being who is not only

the source but the ever-present life of the world, an Infinite Mind or Spirit of whom all things material and spiritual, all the manifold order and beauty of nature, all the thought and life of man, all the events of history, are the immediate, ever-varied, inexhaustible expression ; and, lastly, to whom all finite beings and events point as their final end or goal, the unity in which all differences shall be solved, the eternal harmony in which all discords shall be lost ;—"of whom, and through whom, and to whom are all things."

I take occasion from these words to remark that the argument for God and for that relation of the human spirit to Him which is expressed by the word "religion," has often been weakened or obscured by the false issue on which it has been made to turn. Attempted refutations of Materialism, for instance, have proved ineffective because the theist has tacitly accepted as his own the untenable dualistic theory ascribed to him by his opponents. When the latter attempt in various ways to explain the world, nature and man, in terms of matter and material sequences and laws, and so to preclude the necessity and even the possibility of that higher explanation which is involved in the idea of God,—when, in other words, the attempt is made to reduce the whole system of things, life and intelligence included, to the expression of molecular changes and mechanical force, and so, to eliminate God from the

world, the necessity for the higher explanation is pitched too low when it is represented as the necessity for an Almighty Creator calling all things into existence out of nothing by an act of arbitrary power. To such a conception it may justly be objected that a result which is not necessarily involved in the nature of its cause proves nothing as to that cause, not even so much as its existence. Having convinced ourselves from independent reasons of the existence of an Infinite Intelligence, we may be content to ascribe the existence of the world to such a Being, though its creation be to us a notion altogether incomprehensible. But when we attempt to demonstrate the existence of God from the existence of the world, an appeal to an inexplicable creative act vitiates the argument. The idea of an arbitrary Omnipotence solves all difficulties, but solves them only too easily. It will not suffice to say, 'Matter or a material world could not make itself, therefore it must have had an omnipotent creator,' for this is simply to say that, somehow or another the world must have been created. It is not to find the proof or reason for God in the world, but merely when reason fails us to take refuge in mystery or wonder, or what is the same thing, in a *deus ex machina* of arbitrary power. So again, if thus the theist gives an undue advantage to his opponents by identifying God with a mere external omnipotence calling the world into being, it is only an exaggeration

of the same error when his theory requires a series of arbitrary creative acts, or the periodic recurrence of acts of external supernatural power. If our conception of the world is such as to require a mysterious creative act for the existence of matter, a fresh creative act in order to account for organic and vital phenomena, and for each new species or group of organisms, and again for the existence of intelligent, conscious beings; and if, finally to account for the innumerable relations between these various orders of existence, inorganic, organic, intelligent and self-conscious, and especially those in which we discover the connection of means and ends, we have recourse to a perpetual series of new supernatural acts shaping and adapting things to each other after the analogy of a human mechanist,—if this be our conception of the world and of the way in which it calls for a God to explain it, there would be some ground for the assertion that it is an essentially dualistic conception, and that it breaks down as an attempt to give unity, order, coherence to our idea of the universe. For unity there cannot be where we have merely a succession of isolated elements with the gaps or interstices filled up by an arbitrary factor, or the perpetual recurrence of inextricable knots, with a *deus ex machina* brought in to cut them.

When we turn to modern materialistic theories, it must be admitted that, in simplicity and logical consistency, they have greatly the advantage over

any such crude supernaturalism. Stated generally, materialism is a theory which seeks to give unity and completeness to our conception of the universe by regarding all its phenomena as ultimately resolvable into the dynamical action of atoms or particles of matter. When we have determined the nature of these atoms and the laws of their motions, we shall, it is supposed, have before us the secret of the whole knowable world. Physical science has now ascertained that the phenomena with which it deals are only different modifications of a common energy. Heat, light, electricity, magnetism, etc., are but different modes of motion produced under different conditions, and they are all either directly or indirectly convertible into each other. Further, it is the obvious tendency of modern investigation to resolve chemical into mechanical problems, that is, into questions of molecular physics. When we advance from the inorganic to the organic world, we find indeed that science has not yet been able to trace the production of vital phenomena to the operation of physical or chemical agents. But when it is considered that phenomena so different as those of light, heat, electricity, magnetism, chemical affinity, have been proved to be only different forms of energy, each of which is the exact quantitative equivalent of that from which it has been transformed, and further, that the so-called vital energies of plants and animals are dependent on the chemical

interactions of the food they consume and the air they breathe, and that therefore there is no energy in organized substance which has not formerly existed in the form of physical or chemical energy ; and finally, when we perceive that, according to modern biological speculation, protoplasm, the ultimate basis of life, is simply a combination of chemical elements acting and re-acting on each other, and is found to be, as to form, function, and substantial composition, identical in all organisms from the lowest to the highest—the result, it is maintained, to which we are led by the strongest presumptive proof, is that life is simply transformed physical energy, and that the energies of the animal frame, muscular, nervous, and the rest, are ultimately resolvable into molecular force. Lastly, though it is admitted by the most eminent of modern physicists that there is an unbridged gulf between organization and thought or intelligence, yet when we reflect on the close and inseparable relation between the various mental activities of conscious beings and the physical organization with which they are connected ; when we consider that of the thoughts, emotions, volitions, which in endless multiplicity and variety constitute our conscious life, there is not one which is not correlated to some physical change or motion in the brain-matter of the thinker, and that, so far as we know, the growth, development, decline, the healthy or morbid action of the human mind is invariably connected

with corresponding changes of nervous or brain tissue, the conclusion, it is held, to which scientific investigation points is that thought is but a function of matter—the highest expression, it may be, but still the expression, of the same molecular force which has its earliest expression in inorganic nature. “All vital action” are the well-known words of an eminent living biologist, “may be said to be the result of the molecular forces of the protoplasm which displays it. And if so, it must be true, in the same sense and to the same extent, that the thoughts to which I am now giving utterance, and your thoughts regarding them, are the expression of molecular changes in that matter of life which is the source of our other vital phenomena.” “As the electric force,” again he writes, “the light-waves and the nerve-vibrations caused by the impact of the light-waves on the retina are all expressions of the molecular changes which are taking place in the elements of the electric battery, so consciousness is, in the same sense, an expression of the molecular changes which take place in that nervous matter which is the organ of consciousness.” “Is there not a temptation,” is the language of a kindred scientific authority, “to close to some extent with Lucretius when he affirms that ‘nature is seen to do all things of herself without the meddling of the gods,’ or with Bruno when he declares that matter is not that mere empty capacity which philosophers have pictured her,

but the universal mother which brings forth all things as the fruit of her own womb. Believing, as I do, in the continuity of nature, I cannot stop abruptly where our microscopes cease to be of use. By an intellectual necessity I cross the boundary of the experimental evidence, and discern in that matter which we, in our ignorance of its latent powers, and notwithstanding our professed reverence for its Creator, have hitherto covered with opprobrium, the promise and the potency of all terrestrial life." What then is claimed for this theory is that it gives us a view of the world and of all the various orders of being contained in it, which is simple and self-consistent, which represents all phenomena as the expression of known principles or laws, and furnishes us with an explanation of them into which no arbitrary or inexplicable element intrudes. It does not require or admit of any supernatural interposition either at the beginning or any subsequent stage of the process for which it professes to account. It is a theory, therefore, which not merely rivals, but is absolutely exclusive of, that explanation of the world on which religion is based—of the idea of God and of that conscious relation to Him in which the spirit of man has seemed to itself to find satisfaction and strength.

Does, then, materialism succeed where popular supernaturalism fails? Has it found the key to the riddle of the universe, the principle at whose potent

touch all gaps in the system of nature are filled up, all breaches of continuity vanish, and over all objects and events, all thinking things, all objects of all thought, the beautiful presence of order, causation, systematic coherence and unity is seen to reign ?

I answer, for one thing, that unquestionably the aim of materialistic theories is a true one. It may even be conceded that there is a sense in which in the words I have just quoted, we can "discern in matter the promise and the potency of all terrestrial life," from the simplest organism to the loftiest human intelligence. If we are ever to get at the true explanation of the world, it will doubtless be one according to which there will be no unbridged gap or breach of continuity between one order of being and another ; but the transition from the inorganic to the organic, from lower to higher forms of life, and, last of all, from the physical to the psychical, from nature to the self-conscious mind that thinks it, will be seen to be that of intelligible sequence and evolution. It will present to us, in other words, the world as a system so rigidly concatenated that the very least and lowest of its elements shall have a determinate relation to the last and highest, and the former shall be the necessary presupposition and foreshadowing of the latter. In every great work of art the ideal in all its completeness governs the whole process, and the beginning implies the end. It may even be said of the highest

works of art that there is not in their production one faintest initial stroke that is not instinct with the perfect whole that is to be. The first note of some great symphony is not, indeed, the cause of the rich and varied harmonies that succeed ; but there is in the work, from beginning to end, an organic unity such that the first prelusive note has in it "the promise and the potency" of all that comes after. The first touch of the painter's brush on the canvas, the first stroke of the sculptor's chisel, is determined by the idea, and has in it the anticipated completion of the glorious conception that floats before the creative imagination of the artist. So, if there is a sense in which matter contains in it the explanation of mind, in which molecular force is the preliminary or the presupposition of life and thought, it will, I submit, be found to be this, that matter, though not in any sense the cause of mind, has yet in it organic relation to the world of living intelligence, that the tiniest atom is significant of the vast cosmical system to which it belongs, and the most infinitesimal of nature's movements—the faintest vibration of the spatial ether, the attractive and repulsive movements of the atoms in a molecule of matter, may be regarded as prophetic of the whole finite universe—as, so to speak, a prelusive note of that universal harmony of which thought or intelligence is the consummation.

But whilst this is a point of view which is consistent with, nay, which is the very nerve and essential characteristic of a true theism, it is one which materialistic theories fail to attain. The unity, in other words, of matter and mind, of the world without and the world within, of nature and the thought or intelligence which comprehends it, is a unity which scientific materialism breaks down in the attempt to demonstrate, and which only the idea of an infinite, all-comprehending Intelligence enables us to reach. In what remains of this discourse I shall endeavour very briefly to show that it is so.

What help does scientific materialism give us in the apprehension of that marvellous process by which physical impressions and movements seem to be transformed into such apparently incommensurable equivalents as sensations, feelings, ideas? Within the tiny cavity or chamber of the human skull, as it would seem, there is perpetually at work a mechanism by which dark and silent material motions, vibrations of ether, irritations and molecular changes of nervous tissue are “transfigured instantaneously into shimmering light and ringing sound”—into the radiant, coloured, vocal world of our sensible experience. But for this wondrous chemistry with which brain matter seems to be endowed, nature would be a dead blank to us; from suns and stars rays of light might continually be pouring forth, etheric vibrations for ever

passing through space, playing on the surface of the body, propagated as motions along its wave-conducting nervous filaments ; but if nothing more took place these distant orbs would remain cold and dark, they and the process by which they communicate with us would be only "a congeries of moving masses and vibrating molecules" ; for it is only when they reach the brain that they undergo the marvellous transmutation by which they become for us luminous spheres floating in the distant realms of space. Nor is this process limited to our sensations and perceptions of the outward world ; the creative constructive power of this cerebral matter seems to extend over the whole contents of human thought, over the whole range of human knowledge. As there is reason to believe that there is a physical which corresponds to every mental process, a certain cerebral movement or change which is the condition of every intellectual act, so there is, it would seem, a sense in which it may be said that the magical process of which I have spoken is one by which to mere infinitesimal changes in a white or gray material substance, not only the thoughts and feelings that make up the ordinary texture of life, but all science, all philosophy, all art, all our conceptions of nature and man and human life, all the vast body of our knowledge and speculations concerning things finite and infinite, owe their existence. Nor is this process one of which the manifestations are only on the

positive side. What the normal action of this subtle material organ creates its morbid or weakened action can dissipate and uncreate. An affection of the conducting nerve or brain centre brings with it corresponding loss of sensation. Let one purely physical condition cease to operate and the waves of ether wake no spiritual response, the voice of the singing of birds is heard no more, and the daughters of music lose for ever their charm : let another cerebral change occur, and the sun and the moon and the stars are darkened, and wisdom at one other entrance is shut out from the soul. Let partial exhaustion or slow decay or sudden injury affect the organ of thought and the capacity of sustained intellectual effort is instantly marred, the insight of the clear intelligence becomes blurred, the soaring imagination falls broken-winged, ideas, feelings, fancies visit no longer the creative mind, and genius is reduced to the level of the dullest of common men. Let the physical disorganization go further still, and mental activity is wholly annulled, the lucidity of reason gives place to the wild vagaries of madness or the babblings of imbecility ; and, finally, with the cessation of the organic or functional activity of the brain utter night and darkness descend over the horizon of consciousness, and the life of thought is rounded with a dreamless sleep.

What then is the inference which from such facts as these modern materialistic speculation would have us

draw? The answer is given in the words I have already quoted, "Consciousness is a function of nervous matter." Thought is an expression of molecular changes in the same sense as discharges from an electric battery are expressions of molecular changes in it. "The thoughts to which I am now giving utterance, and your thoughts regarding them are the expressions of molecular changes in the matter of life which is the source of our other vital phenomena." In what way, indeed, the physical is transformed into the psychical we know not, but here the now accepted doctrine of the correlation of energy comes to our aid. All phenomena however seemingly different are reducible to forms of motion, and are convertible into each other—light into heat, heat into chemical energy, that again into electricity, and so forth. There is the strongest reason to believe that this generalization extends beyond physical changes to the realm of feeling and thought, and that as vital is but transformed mechanical and chemical energy, we reach only another stage or expression of the process when we find vital energy converted into sensations, volitions, and the other phenomena of consciousness. "Thought," says Mr. Huxley, "is as much a function of matter as motion is."

Are we then constrained to adopt the materialistic conclusion with all the destructive consequences as to our spiritual life, as to freedom, responsibility,

immortality, with which it seems to be fraught? Volumes of specious argument and sounding rhetoric have been expended on it, often, I cannot help thinking, without finding a single cleft in the logical armour of the materialist. But there are it seems to me two objections, one on the physical, the other on the psychological side of the question, which are absolutely fatal to the materialist theory of the relation of matter and mind.

In the first place, that theory is in irreconcilable opposition to that very law of the conservation of energy on which it professes to rest. What the law means is, as we have seen, that the amount of physical energy in the universe is never diminished or increased; that heat, light, electricity, magnetism, are only various forms of that energy which are convertible into each other, and that each is the exact quantitative equivalent of that from which it has been converted : so that amongst the endless transformations which manifest themselves in the phenomena of the material world, no faintest quantity of energy is ever abstracted or dissipated, no faintest addition to the grand sum of energy is ever made. But now if the materialistic theory be true, instead of the amount of physical energy remaining constant, there lies beyond the region known to science, and within which the calculable changes of energy take place, another and supra-physical region into which drafts of energy are

perpetually being made, and from which increments of energy are perpetually being poured forth. . The energy which is used up in producing mental results cannot be producing physical results at one and the same time ; therefore, from the constant realm of nature, where, as we have all hitherto believed, the same physical causes will be followed by the same physical effects without the slightest possible variation, an incalculable abstraction and an equally incalculable augmentation or restoration of energy is ever being made. The law in question is not that the amount of energy in the world, *thought included*, remains constant, but it is that the amount of energy which expresses itself in purely *physical* phenomena remains constant, and it absolutely forbids the transformation of physical energy into anything that is not physical energy. But consider what, according to this theory takes place in every case of sensation, in every case of voluntary action. In the former, a physical movement, a light-wave or sound-wave is propagated along its proper nerve till it reaches the brain, and then in the form of a sensation it vanishes into a region beyond, absorbs in a new transformed form from the realm of nature a certain quantity of its energy, leaves certain of its physical antecedents without physical consequents, diminishes for the time the sum of energy in the world. In every voluntary action, on the other hand, an equally arbitrary in-

crease, or at the least arbitrary restoration, of the sum of energy takes place. From the region of mind or consciousness, energy which had passed away from the physical world comes back to it in the re-transformed shape of nerve force, calling forth motion through the muscular apparatus. A physical effect for which there is no immediate physical antecedent is interposed into the order of nature, and the sum of her energy, actual or potential, is more than it was. The alleged transformation of physical into psychical energy is therefore in obvious inconsistency with the law on which it professes to rest, and might be shown logically to involve absurd and impossible results. If thought is transformed physical energy, the amount of physical energy in the world will vary with the number of thinkers and the activity of their minds. As education and culture advance, the drain on the reservoir of energy would constantly increase, and a period might come when the whole fund would be exhausted, and the material system might ultimately collapse through the intellectual development of its inhabitants. Nor would the catastrophe be arrested or counteracted by the restoration or recreation of energy through voluntary action; for every volition, if on the one hand it creates nerve force, is itself an act which makes a corresponding demand on nerve force. It takes at the same time that it gives, and thus the process of exhaustion is not counterbalanced by

any process of replenishment. I need not, however, press this thought any further. It is obvious that in point of fact science knows no such breaks of physical continuity. The uniformity of nature, the invariableness of physical law, the principle that like physical consequents may with absolute certainty be looked for from like antecedents, is the first principle of scientific investigation, and so, the very law on which the materialistic theory is based is the rock of offence on which it falls to pieces.

But the final and fundamental objection to all materialistic theories is that they beg the whole question at issue. The matter out of which mind is to be extracted is itself the creation of mind, the thought or intelligence that is alleged to be a function of matter is and must be already presupposed in that out of which it is said to be educed. Consider what the problem is. Before you could reach thought or mind as a last result you must needs wholly eliminate it from the data with which you start. The matter out of which mind is to spring must be matter *minus* mind, and into the constitution of which not one faintest ingredient of mind must be conceived to enter. The ingredients of the process, so to speak, out of which consciousness is to arise must be wholly outside consciousness, belonging to a world external to thought, and which must be conceived of as existing and operating prior to and apart from the intelli-

gence that thinks them. But one does not need to be a votary of idealism to see that the task which materialism thus involves is an impossible one. Whether there be such a thing as a world of things in themselves that lies outside of and beyond thought, whether in that world there may be any unknown things that might be called atoms, molecules, ethereal waves, nervous fibre, etc., existing in themselves before any mind begins to perceive or think them—that is not the question. If such things there are, it is not such matter and motion by which you profess to explain mind, but the matter and motion *we know*, the matter and motion *we think*. At any rate you, before you can make anything of them, must perceive and think them. For you matter and force and the rest are matter and force thought about, within consciousness, existing for you as mental conceptions, implying and presupposing every one of them the presence and activity of thought. The least and lowest fact for you is not fact minus thought and out of which, somehow, thought may be conceived to emerge; but it is fact as object of thought, fact for an observing mind, having mind or thought as an inseparable factor of it. And so, in the very raw material out of which you profess to work up mind, mind has already been at work.

The argument, then, on which I insist is that mind cannot be the product of a world which it, to say

the least, co-operates in producing, and that the materialist can no more start with bare material facts in the production of which thought or intelligence is not a factor than he can outstrip his own shadow or leap off his own shoulders. The ordinary unscientific observer, indeed, seems to himself to be confronted by a world of realities existing in themselves just as he perceives them, and of which he is simply the passive spectator. All he knows of these outward realities, their permanent identity, their forms, figures, distance, relations are there, as objective facts existing in nature just as he conceives them. The hues and colours are spread over mountain and meadow and forest and flower, the woods are ringing with song, and the multitudinous music of brooks and streams, of winds and waves is ever sounding and reverberating as though there were no ear to listen to it and no sentient and conscious soul to respond to it. The more cultured observer has, of course, got beyond such blind realism, knowing as he does that something at least of what ordinary observation ascribes to nature exists only relatively to his own sensibility. But having got over this crude attitude of mind, the educated observer cannot stop here. A large element of what before seemed bare outward material facts he knows to be contributed by the sensitive consciousness of the observer. What the senses give us is not the world of concrete individual objects existing in

space, but only at most the raw material out of which that world is to be created. It is one of the elementary lessons of psychology that the process of perception is one which implies the active, constitutive power of intelligence, without which the bare data of sensations, visual, tactual, muscular, etc., would give us no real information as to the character of external objects, their particular concrete reality, their position in space, their distance from each other, and from the observer, etc. Thus to constitute the reality of the outward world, to gain even that point of departure which is implied in so much as the bare existence of material things, the presence and the comparing, discriminating, unifying activity of thought is pre-supposed. Matter, in short, out of which by some inconceivable process thought is to be produced, is that of whose very existence thought is the constitutive, creative source. Suppose, then, we accept to the fullest extent the physiologist's account of the matter, what proof or scintillation of proof have we that organization is prior to thought? Prior to thought it may, in the sense that neither he nor I would be able to think unless we had a brain and nervous system of a particular structure. But a theory of the physical conditions of thought is not an explanation of the nature and origin of thought itself. In another sense, to say that organization is

prior to thought is a contradiction in terms. Not only is it true in general that neither organization nor anything else can have or be conceived to have any existence save as thinkable existence; but life and organization or an organic structure involve in their very essence a whole host of ideas or categories of thought. Before the physiologist reaches mind, that out of which mind is to be evolved is a thing that is suffused with thought, that swims in an atmosphere of thought.

I must here arrest this discussion, and cannot attempt to examine the bearing of the views I have attempted to criticise on the problems of religion and theology. On this subject I will only offer a single remark in conclusion. I have spoken of the priority of thought or intelligence to matter and the material world. But the priority I claim for it is not and cannot be that of your individual intelligence or mine. It is not our poor thought that creates or uncreates the world. A great poet has said that "in *our* life does nature live." But it is not so. There was a time when our thought was not; and the world and all that is therein, the round ocean and the living air, the blue sky, the fair and wondrous order of nature, would be as real and as fair, though we and myriads such as we, were not here to perceive and know it. In far away solitudes, which no foot has trodden, nature is not less fair and 'glorious than when it fills the eye

and sense of man with its wonder and beauty. And there, though unseen and unnoticed by human observation, through uncounted ages and millenniums, the sweet light of each returning dawn, the golden rain of noontide, the fading splendours of evening, have shed their exhaustless munificence over land and sea, over field and forest and stream. And in the illimitable depths of space there may be worlds and suns and systems, though human science has never observed their phenomena or grasped the laws that govern them. But though nature lives not in *our* life, what I have said as to the necessary priority of thought to nature, the impossibility of any existence that is not existence for thought, is not the less true. Nay, just because it is not true of your thought or mine, this principle contains in it the strongest, the deepest, the one irrefragable proof of the existence of a thought, a mind which is before and beyond all finite intelligence, or rather to which the words "before" and "after" are inapplicable, the one eternal thought in which all things live and move and have their being, of which all nature, all beauty, all order, all finite thought and life are the ever accumulating expression. And this, as it is the surest proof of God, is also that which gives us the grandest conception of His nature. Many of the representatives of modern scientific materialism have denied that the tendency of their theory is atheistic. But the only conception of God of which

avowedly their speculations admit, is a God outside of knowledge, the dark impenetrable background of the phenomenal world, our only relation to whom or to which is not intelligent admiration or love, but simply awe and blind reverence for the unknown and unknowable. The object of religion, one of the most eminent of them tells us, is "the mystery from which we have emerged and which each succeeding age is free to fashion in accordance with its own needs." But if this be the only God to whom science points and with the notion of whom it proposes to satisfy the infinite aspirations and inextinguishable hopes of the spirit of man, the boon it offers is a boon for which I, for one, cannot pay it the poor tribute of my gratitude. I cannot bow before this blank inscrutability, of whom you tell me I can neither affirm nor deny anything, and for whom, therefore, I can feel no intelligent reverence. Not such is He, the God to whom the principle I have imperfectly illustrated points—the Being who is not banished beyond the bright domain of intelligence, but who is Himself the light of all our seeing, the Infinite thought which, while it transcends all, yet reveals itself in all we see and think and know, and discloses itself more and more with every step in the onward march of human knowledge. The God of whom we can thus conceive is no blank mystery, no veiled divinity, withdrawn for ever from us into night and darkness, with whom the conscious spirit

of man can hold no communion. It is some reward of a truer speculation if it enables us to put away this phantom of nescience and to think of God as the God of truth, of science—the Being whose dwelling place is not thick darkness, but wherever knowledge sheds its kindly light over the paths of men—whom every true thought, every fresh discovery, every idea of the wise and every intuition of the good, are helping us to know more fully—the Being, in one word, who is Himself the Truth absolute and inexhaustible, after which the greatest of the sons of men have sought with a thirst which is unquenchable, and which, when they have in any measure grasped it, is the inestimable reward of all their endeavours.



WORKS BY PRINCIPAL CAIRD.

AN INTRODUCTION TO THE PHILOSOPHY OF RELIGION.

Third Thousand. Demy 8vo. 10s. 6d.

"A book rich in the results of speculative study, broad in its intellectual grasp, and happy in its original suggestiveness. To Dr. Caird we are indebted for a subtle and masterly presentation of Hegel's philosophy in its solution of the problem of religion."—*Edinburgh Review*.

"It is the business of the reviewer to give some notion of the book which he reviews, either by a condensation of its contents or by collecting the cream in the shape of short selected passages; but this cannot be done with a book like the one before us, of which the argument does not admit of condensation, and which is all cream."—*The Academy*.

"Probably our British theological literature contains no nobler or more suggestive volume."—*Mind*.

UNIVERSITY SERMONS AND LECTURES.

Demy 8vo. Price 1s. each.

I.

CHRISTIAN MANLINESS. A Sermon preached before the University of Glasgow, 1871.

II.

IN MEMORIAM. A Sermon preached before the University of Glasgow, on occasion of the Death of the Very Rev. THOMAS BARCLAY, D.D., Principal of the University, 1873.

III.

THE UNIVERSAL RELIGION. A Lecture delivered in Westminster Abbey, on the day of Intercession for Missions, 1874.

IV.

THE UNITY OF THE SCIENCES. A Lecture delivered before the University of Glasgow, 1874.

V.

THE PROGRESSIVENESS OF THE SCIENCES. A Lecture delivered before the University of Glasgow, 1875.

JAMES MACLEHOSE & SONS, PUBLISHERS TO THE UNIVERSITY.

TRUE SCIENCE.



WHAT DO WE KNOW OF CAUSATION,

OR

THE RESULTS OF LIFE,

AS

MANIFESTED IN EXISTING THINGS?



JOHN HEYWOOD,
DEANS GATE AND RIDGEFIELD, MANCHESTER;
AND 11, PATERNOSTER BUILDINGS,
LONDON.
1888.

921

d.

3(4)

S MACLEHOSE & SONS, PUBLISHERS TO THE UNIVERSITY.

TRUE SCIENCE.



WHAT DO WE KNOW OF CAUSATION,

OR

THE RESULTS OF LIFE,

AS

MANIFESTED IN EXISTING THINGS?



JOHN HEYWOOD,
DEANSGATE AND RIDGEFIELD, MANCHESTER;
AND 11, PATERNOSTER BUILDINGS,
LONDON.
1888.



ES MACLEHOSE & SONS, PUBLISHERS TO THE UNIVERSITY,

WHAT DO WE KNOW?

THE first thought that occurs to the mind on the above subject is the axiom—something there always must have been or nothing still would be. It would be advisable here to clearly note the extent of our knowledge of existence. All our knowledge is limited to apprehend properties, attributes, and predicates, observable and apprehensible in the world of matter and in the world of mind. Entity or substance, neither material nor spiritual, is known by man, nor possibly can be known by man. Substance is known to God alone, who is underived being, the I Am. The properties of matter and the properties of spirit are discrete the one from the other. Weight, measure, and dimension are properties or attributes of matter, and it is impossible to have an idea of matter apart from these properties or attributes.

Love, thought, and intelligence are properties or attributes of spirit (not of matter), and are not subject to the laws of time and space, nor to the inert fixed conditions of the attributes of matter. Spiritual attributes and qualities are wholly impossible to material things and beings. They exist discrete, as cause and effect; and all will admit that cause and effect are discrete. The truth is that the spiritual world is the world of causes, and the

material world is the world of effects. But how are we to know or distinguish spiritual things and beings from material things and beings? Simply by recognising their essentially distinct and discrete qualities, attributes, and predicates. The properties of matter are largely known to us from daily experience; they are the outermost of things that environ us, and are recognisable by us through the five material organs of sense peculiar to our natural or material body. The properties of spirit are not recognisable by the eye of the material body, nor is it possible that they can be, because they are discrete, and have nothing in common with any properties of matter. The properties of spirit are immensurably more active and enduring than the properties of matter. Spirit, like the kingdom of God, is within or on a higher plane of existence. The spirit of man (which is the essential man both as to substance and form) alone is immortal, possesses senses analogous to man's material bodily senses, and in truth is within them as a cause is in its effect, and is in reality the cause of our bodily conscious life, and which bodily conscious life ceases when the spirit is withdrawn at what we call the death of the material body. It is plain that what is visibly durable in this world is not anything wholly material, that which continues to exist on the natural plane of being is that which bears the impress of mind, as manifested in all that is perpetual, enduring, and abiding wherever existing in the material world. It is things of mind (spirit) that continue and advance. Mere matter in all its modes and manifestations is transitory and non-enduring. Mind alone is perpetuated and endures, as is evidenced in the conquest of mind over matter,

subjecting and controlling the forces in nature to his will and use, ever advancing to higher and more perfect states of life. As beforestated, love and intelligence are properties of spirit (not of matter). It will be acknowledged by all that wherever there exists properties and attributes there must of necessity be substance or entity of being, qualities and attributes apart from entity or substance is wholly impossible and utterly unthinkable. Also, it is evident, that substance must be of like character with its properties and attributes. Man alone possesses a faculty of will and a faculty of understanding. Man alone has volition and analytical thought; man acts as of himself from choice and reason. Animals act from instinct, beyond which they cannot pass, being without volition and analytical thought. Life in itself is underived; the I Am is infinite and eternal. Life being infinite, has eternally operated in creating and sustaining the spiritual and natural worlds. Man being finite, cannot comprehend the infinite; yet man can and does apprehend the infinite in an ever-increasing degree, but, being finite, can never fully comprehend infinity. In man's finite capacity of mind is assured his ever living and advancing state to eternity. Man is not in possession of all knowable truth, and no sane man will affirm that man is not in possession of any truth at all. Man possesses capacity of mind to see and conclude that nothing whatsoever that is merely material in properties and attributes is admissible or even thinkable as being infinite and eternal, whilst it is possible to possess an idea of spiritual existence as being infinite and eternal. Life or love in fountain and source may rationally and without stultifying the understanding be accepted as being

without limit, infinite and eternal. Query : Are material things in any form or mode of existence infinite and eternal ? Answer : No ; matter in no form or mode whatsoever is possible to be infinite and eternal, simply because matter is lifeless, and must of necessity be the result of the activity of life, otherwise matter could have no existence—all existence is from life alone. The galaxy of suns, and every other form of material existence whatsoever, are as far from being infinite and eternal as is one grain of sand of the earth upon which we dwell. Number or quantity, however much extended, is still finite. It, therefore, follows that all material things have had a beginning, and have been created. We do not know, nor is it possible for a finite being to understand or comprehend, how material things have originated ; but a finite being can, and does, apprehend the existence of things. It would perhaps be well to be reminded that we do not know the how of the existence of anything whatsoever. We do not know cause, or the how and why of the existence of anything ; we only know effects. We know that the lodestone attracts ; but we do not know, nor in the least degree comprehend, how or why the lodestone attracts. Causation is of life, and of life we know absolutely nothing whatever, apart from effects of life. In other words, effects, and not causes, are possible of apprehension by a finite mind.

Space is not infinite. Space is limited and bounded ; or, more correctly stated, space does not exist apart or beyond existent things—suns, earths, atmospheres, and ethers, all which are material and finite. Space has only a relative existence, and beyond existent things (except the cause of existent things)

is pure nothingness. Sequence is written upon all things up to the uncaused I Am, the self-subsisting infinite and eternal being. God alone is infinite and eternal. Nature is not, nor is possible to be, infinite and eternal. Life or love is possible to be infinite and eternal. An idea of life involves existence of something by which life is manifested, therefore life is dual in being. Life is love made manifest by truth : these two are one, as substance and form are one. God is Love. God is Truth. God is One. All existent things are passive to life. Nature cannot logically be both the active and the passive, as one is discrete from the other. All motion is of life, and life is infinite and eternal. The vastness in magnitude and the no less wonderful littleness of things attest to the unlimited action of life operative within all things. All things that exist are manifestations of the activity or life of God, who is infinite love and truth.

Heat and light in the sun of nature originate and are sustained by the heat and light of the sun in the spiritual world, which sun is the first emanation from God, the sole origin of all things that exist and are perpetuated in being. God is discrete from all creation, spiritual and natural, as cause and effect ; and as God changes not, His creative life is unceasing in creating and sustaining all things existent in the spiritual and natural worlds. A work of art executed by man—painting, sculpture, &c.—is discrete from man, and stand in relation one to the other as cause and effect. The work of art having first existed subjectively in the mind of the artist now exists objectively in the world of matter, time, and space. The great difference between man's work or production and the production of the operation of God in crea-

tion (apart from skill) is man had his materials to hand, whilst God produced from Himself both substance and form. It is irrational and absurd to assert that God called into being or existence something other than Himself from pure nothingness. It is simply impossible for anything whatsoever to spring or originate out of that which does not exist; nothing is possible to be predicated of that which has no existence whatever; the assertion is foolish, void of understanding, and unthinkable. To the enlightened mind, there is nothing in the Divine Word that implies the idea of something or anything originating from nothing. The Divine Word teaches us that God willed the things—all things, both spiritual and material, that were created into being and existence—therefore all things originated in, and had existence from, the will of God. The will of God is God, and creation had, and still has, its origin in and from God. The entity, being, or substance of all things, has existence from the infinite Divine Love, and the form of all things has existence from the infinite Divine Truth. All things first existing subjectively in the Divine mind, and thence objectively in the spiritual and material worlds. Epistle of Paul to the Romans i., 20: "For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and godhead." As above stated, it is impossible for anything whatsoever to spring or originate from that which does not exist, not even in idea of thought that has anything to rest upon, it being utterly unthinkable and involves a flat contradiction. The mind can only imagine or have an idea of something that does exist. Let anyone try to imagine

something that does not exist, and he will at once be convinced of its impossibility. Everything whatsoever it is possible to imagine does exist. There are errors of the mind's imagination, and their name truly is legion. Everything imagined exists, but not always in the way, order, form, or arrangement erroneously thought and imagined to exist. The error arises in the mind's disorder, darkness, and confusion. Monstrosities of the imagination, either of animal or any being or form whatsoever, are simply impossible to be even imagined, unless the component parts or things existed as a base and object for the mind's imagination. Ideas of imagination are wholly impossible, apart from objects or subjects as a base for the imagination. Man possesses ideas of God, spiritual existence and natural or material things, therefore beyond a rational objection of denial we are most certain and sure that God, spiritual and material things do exist, otherwise man could not even imagine their existence. As before stated, we may and do form erroneous imaginary ideas about God, spiritual and material things, and beings, by misplacing things and their qualities, attributes, and predicates that exist in the world of mind and in the world of matter; and the errors of imagination are thereby originated. All monstrosities and errors arise from the untrue and false position we assign to the qualities and attributes of things and beings, both spiritual and material. The attributes exist, but not as erroneously imagined. A knowledge of degrees, discrete degrees and continuous degrees, is essential to understand creation, or the laws that govern all things spiritual and material of mind and matter. The three kingdoms of nature are discrete one from the other.

The mineral kingdom is continuous throughout, and the highest form of the mineral kingdom is below and discrete from the lowest or the most primitive form of the vegetable kingdom. The vegetable kingdom is discrete from the animal kingdom ; the lowest or most primitive form in the animal kingdom being above and discrete from the highest form of life in the vegetable kingdom. Every species in the animal kingdom is discrete. Man is discrete. Mind or spirit is discrete from matter. The spiritual world is discrete from the material world. Thoughts are discrete from signs spoken or written. All causes are discrete from effects. The will is discrete from the understanding. God is discrete from all His creation. All things are sustained in being and use by the one infinite life, and the manifestation of life in degree is according to organisation. In minerals, the ultimates of existence, attraction of atom to atom is its lowest manifestation, but, like many little things, from their aggregation and combination, wonderful, stupendous, and marvellous results are accomplished, forming and guiding the mighty suns and earths in their evolutions and changes of condition, effectuating the forms and stratas from centre to circumference, and by which numberless forms and beings are produced by the one all-sustaining life of God. In man a faculty to will or love and a faculty to understand or know, together with power to act in freedom of will, limited by a finite agency only, is the highest or most perfect vessel or being recipient of life from God. In these days of assiduous and pronounced agnosticism and widespread unbelief and denial of spiritual existence, it is the duty of all to hold up as best we can the lamp and light of genuine truth to

enlighten and dispel the mists and clouds of darkness and error prevailing all around us. We can only present objects and subjects for others to see ; no one can give to another perception or sight. Perception or sight must be voluntarily acquired by all who attain to a knowledge of truth. We must go and buy for ourselves by labouring for it. It is essential for us to comprehend and see the utter impossibility for matter to see spirit. The natural or material eye can only see natural or material things as objects of sight, or, more correctly, the eye of the body being material, can only receive impressions of material things by the laws of natural light. Also, the spiritual eye can only see spiritual things as objects of sight. Natural objects and things are only possible of perception by the eye of the spirit, by means or through the material organ of the natural eye. Everything that exists in the material world has its counterpart in the spiritual world, and apart from which counterpart its existence would be simply impossible, the relation of one to the other being that of cause and effect.

The amazing, wonderful achievements and discoveries of natural science are so vast and far-reaching that but few minds can adequately apprehend them. To all minds that are in affirmative states the recent discoveries of science are helpful in enlightening the mind and understanding intelligently to comprehend some of the marvellous operations of the one infinite life of the Creator God that actuate and direct all things material and spiritual to use and happiness, which is the end for which all things were and are created.

Professor Roscoe, who was president of the British Associa-

tion of Science (1887), in his presidential address, informed us of some of the late discoveries of science, a part of which was : "Clerk Maxwell calculated the number of times in which hydrogen molecules, moving at the rate of seventy miles per minute, strike against others of the vibrating swarm, and we learn that in one second of time it must knock against others no less than 18,000,000,000 times. If activity as manifested in the world of matter be so wonderful, what may not be possible of life acting upon or within the immensurable, more receptive and plastic qualities and attributes of spiritual substance, which manifest volition and thought? We are led with the Psalmist to exclaim : "Such knowledge is too wonderful for me ; it is high, I cannot attain unto it. I will praise thee ; for I am fearfully and wonderfully made : marvellous are thy works ; and that my soul knoweth right well."

To the above few remarks on the subject of creation, &c., it may be appropriate and perhaps useful to add a few words on what is just now exciting much public attention, viz., the Down-Grade movement. Peradventure movement of any kind is better than the stillness of death. Psalm lv., 19 : "Because they have no changes, therefore they fear not God." Hosea iv., 17 : "Fbpraim (the mind as to thought) is joined to idols : let him alone." When the student of the Divine Word becomes enlightened in what is involved, contained, and meant for our own and individual application in the above quotations of the Divine Word, then there would be no more talk and insinuations of the out-worn and out-distanced Old Testament Scriptures. 2 Timothy iii., 16 : "All Scripture is given by inspiration of

God, and is profitable for doctrine, for reproof, for correction, for instruction in righteousness." It is for lack of a knowledge of the genuine truths (symbolically given to man) of the inspired Word of God that has occasioned the Down-Grade movement. Isaiah xxviii., 20: "For the bed is shorter than that a man can stretch himself on it: and the covering narrower than that he can wrap himself in it." Doubt honestly held and expressed betokens a better state of mind than blind indifference as to what is or is not genuine truth, and so have no changes, being joined to idols in both heart and head, or will and thought. To many adherents to orthodoxy, or the popular faith and belief, it never so much occurs as a thought to them of the possibility that orthodox doctrines of faith may possibly not be founded on genuine truth, not reflecting that orthodoxy or the popular faith is itself a shifty and fleeting state of the popular mind and belief. The established truths of the modern discoveries in geology and astronomy have compelled retreat from the aforesaid orthodox faith in the creation of the earth, sun, moon, &c., the creation of which is not a subject matter of divine revelation at all. God never repeats Himself, and God has endowed man with faculties in the use of which man may attain to a knowledge of the existence of material things. A subject matter of divine revelation demands to be the revelation of something, the knowledge of which man, unaided by revelation, could not possibly acquire a knowledge of. The revelations from God, as contained in the Divine Word, are wholly spiritual in character throughout. The literal sense is for a means or content of the spiritual sense. The spiritual sense of the

Divine Word is pre-eminently adapted to man as a spiritual being destined to live eternally. The weighty and cogent fact of there being so many sects of religion ought surely, to all thoughtful believers in God and in His Word, cause them to sift well the foundations of their faith in the orthodox doctrines of our day, which are opposite and conflicting in the light of reason, unbiassed judgment, and truth. We should compare Scripture with Scripture, and so let Scripture be its own (not our) interpreter. The stones of the altar (the truths of the Divine Word) must be unhewn stones (unwrought stones), for if thou lift thy tool upon it, thou hast polluted it. Mark vii., 13: "Making the word of God of none effect through your tradition." Matthew xv., 9: "But in vain they do worship me, teaching for doctrines the commandments of men." Here we have the highest authority, even the Divine origin of truth (who alone in His glorified humanity is the Truth and the Life), testifying that the Divine truths of the Word have by man been falsified and polluted by lifting up his tools upon it, and so rendering the commandments of God of non-effect to the regeneration of man. We are bound to admit that truth is unchangeable, and is never in opposition to itself, but only in opposition to the false, the untrue. Let us accept the fundamental and glorious truths: God is Love, God is Truth, God is One; and having accepted these three fundamental truths of the Divine Word, allow and apply them as a guide and test of all other doctrines of religious faith and belief whatsoever and from wheresoever enunciated. The faculty of mind is not only receptive and remembering, but also is perceptive and under-

standing, and we should not only gather and receive things into the memory but digest them (chew the cud), see and understand them, and thereby become wise, good, happy, and useful to our neighbour universally.

J. K.

1888.



JAMES MACLEHOSE & SONS, PUBLISHERS TO THE UNIVERSITY.



ES MACLEHOSE & SONS, PUBLISHERS TO THE UNIVERSITY.

